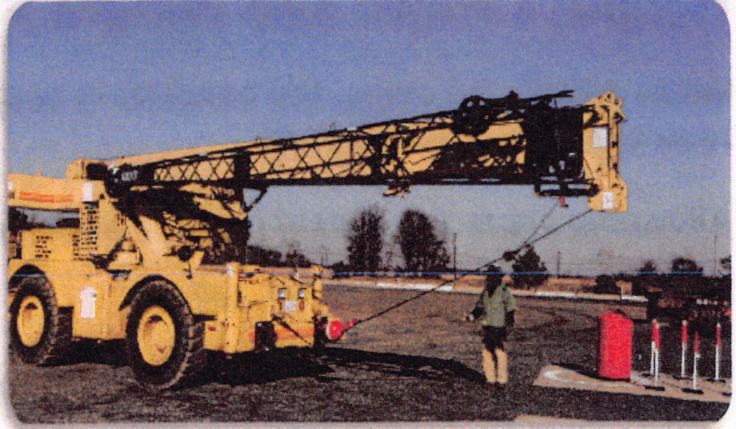


Module 31

Preparing Cranes for Transport



Learning Objectives

By the end of this section, you will:

1. Know how crane operators assist drivers during crane transport.
2. Identify the safety precautions required with over width permits.
3. Know how to calculate Gross Vehicle Weight.
4. Understand the steps involved in lattice boom crane transport.
5. Be able to dismantle a hydraulic crane.
6. Know the steps in a typical transport process.

Safe operation of the crane includes the transportation of the equipment on and off the job site.

Transportation of the equipment from job site to job site without damage is a primary concern.

There is NO EXCUSE for not knowing pertinent laws and regulations.

- Operators who transport cranes must stay current with regulations governing the roading of crane equipment.
- Many clearances and restrictions are mandated by law or regulation.
- Many of the restrictions on height exist to accommodate bridges and power lines.
- Regulations vary from jurisdiction to jurisdiction.

Truck drivers should be involved when cranes and components are being loaded to help identify loading conditions and requirements.

Height, Length and Weight Restrictions

When driving the crane, the operator is responsible for complying with road or highway restrictions.

Allowable crane equipment length varies by jurisdiction.

Some equipment may require oversize permits.

Projecting and overhanging components may also need special permits.

If cranes require over width permits, what are some of the safety precautions that local permits might require?

- » Pilot car.
- » Flags.
- » Signage.
- » Clearance lights.
- » Police escort.

Gross Vehicle Weight (GVW) along travel route must be checked before transport.

Although truck mounted cranes are designed to transport themselves, they have certain limitations. Gross vehicle weight is primary limitation.

What are some of the elements included in GVW calculations?

- » Crane.
- » Trailers.
- » Boosters.
- » Rigging apparatus or components.

To abide by GVW restrictions, counterweight and/or outrigger assemblies may need to be removed.

Transporting Lattice Boom Cranes

Alterations are normally required to obtain required height restrictions.

Alterations necessary may include:

- Removal of boom tip
- Lowering of the gantry or live mast
- Lower boom hoist rope deflector roller

When loading crawler cranes onto low-boy, flat bed trailer, or railroad flatcar, use long ramps for shallow angle.

Follow manufacturer's recommendation for the removal or installation of crawlers from car body if required for transport.

If boom is attached, it should be carried over the front of most cranes, up hill, and at a low angle.

This prevents machine or boom from going over backwards.

Transporting Hydraulic Boom Cranes

Hydraulic truck cranes are usually designed to meet height restrictions in road traveling mode.

What are some of the factors that must be considered to safely and efficiently dismantle a hydraulic crane??

- » Firm level ground.
- » Sufficient clearance.
- » Traffic flow.
- » Electric and other utility hazards.

What are some of the steps that may be included in the rig-down process?

- » Retracting boom.
- » Retracting outriggers.
- » Connecting load hooks to tie-down.
- » Laying boom in carrier boom cradle.
- » Stowing the outrigger floats + rigging.

A boom dolly may be required to distribute machine weight over extra axles.

Additional equipment may be required to assist with removing boom to reduce machine weight on road.

Notes: